

**Claims**

1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastrointestinal diseases and inflammation in a mammal comprising the steps of
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- i) contacting a test compound with a GHS polypeptide,
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- ii) detect binding of said test compound to said GHS polypeptide.
2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastrointestinal diseases and inflammation in a mammal comprising the steps of
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- i) determining the activity of a GHS polypeptide at a certain concentration of a test compound or in the absence of said test compound,
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- ii) determining the activity of said polypeptide at a different concentration of said test compound.
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3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastrointestinal diseases and inflammation in a mammal comprising the steps of
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- i) determining the activity of a GHS polypeptide at a certain concentration of a test compound,
  - ii) determining the activity of a GHS polypeptide at the presence of a compound known to be a regulator of a GHS polypeptide.
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4. The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.
  - 10 5. The method of any of claims 1 to 3, wherein the cell is in vitro.
  6. The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.
  - 15 7. The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.
  8. The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.
  - 20 9. The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.
  10. The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.
  - 25 11. The method of any of claims 1 to 3, wherein the compound is attached to a solid support.
  - 30 12. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular

diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising the steps of

- 5           -    i)       contacting a test compound with a GHS polynucleotide,
- ii)       detect binding of said test compound to said GHS polynucleotide.
13.       The method of claim 12 wherein the nucleic acid molecule is RNA.
- 10       14.       The method of claim 12 wherein the contacting step is in or at the surface of a cell.
15.       The method of claim 12 wherein the contacting step is in a cell-free system.
16.       The method of claim 12 wherein polynucleotide is coupled to a detectable label.
17.       The method of claim 12 wherein the test compound is coupled to a detectable label.
- 20       18.       A method of diagnosing a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising the steps of
- 25           i)       determining the amount of a GHS polynucleotide in a sample taken from said mammal,

- ii) determining the amount of GHS polynucleotide in healthy and/or diseased mammals.

5 19. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising a therapeutic agent which binds to a GHS polypeptide.

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20. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising a therapeutic agent which regulates the activity of a GHS polypeptide.

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20 21. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising a therapeutic agent which regulates the activity of a GHS polypeptide, wherein said therapeutic agent is

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- i) a small molecule,
- ii) an RNA molecule,
- iii) an antisense oligonucleotide,
- iv) a polypeptide,
- v) an antibody, or
- 30 vi) a ribozyme.

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22. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising a GHS polynucleotide.
23. A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising a GHS polypeptide.
24. Use of regulators of a GHS for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal.
25. Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal comprising the steps of
- i) identifying a regulator of GHS,
  - ii) determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system,

respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-intestinal diseases and inflammation in a mammal; and

iii) combining of said regulator with an acceptable pharmaceutical carrier.

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26. Use of a regulator of GHS for the regulation of GHS activity in a mammal having a disease comprised in a group of diseases consisting of cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases like COPD and asthma, hematological diseases, cancer, gastro-

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intestinal diseases and inflammation.

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